

### **Abstract of the Disclosure**

A multipurpose multifunctional (M/M) interface device system comprises one or more system ports configured to couple to a system to be diagnosed; one or more diagnostic ports configured to couple to at least one diagnostic system; a set of power management modules configured to provide a full power level and a reduced power level; and a main processor module configured to  
5 control communications between the system ports and the diagnostic ports. The main processor module selectively transitions the M/M interface device between a standby mode at the reduced power level and an operational mode at the full power level in response to prescribed criteria. The device is useful in vehicle diagnostics, such as gas analyses, and other applications.